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VIBURNUMS

THE beauty and interest of many a shrub border is greatly enhanced by viburnums. These plants are most serviceable, and every outstanding shrub garden should include at least a few in one place or another. A good selection of viburnums will provide interest in the garden during the whole year, since several are valued for their flowers in the spring, others are valued for their good foliage, and some for their summer fruits. In autumn many are outstanding when covered with bright colored berries, while most of the Viburnum species have good autumn coloration. In some species the fruit remains attached throughout the winter.

Thus the viburnums are a group of plants that add interest to the garden throughout the year. Some are common in cultivation while others are still rare. The Arboretum collection contains about seventy species and varieties. These include most of the hardy species and varieties available in nurseries in this country, together with some rare types that are not generally available; some of these are of botanical interest but have little ornamental value. Supplementing those species hardy in New England are a considerable number of species that will thrive only under more favorable climatic conditions farther south.

Sometimes, in considering a large group of plants such as the viburnums, the gardener is apt to lose sight of the wide ornamental possibilities available by a careful selection of species within a single genus. This Bulletin is devoted entirely to a consideration of the viburnums that are hardy in the north. It is hoped that the following data may increase interest in this group of plants and lead to a fuller appreciation of the horticultural possibilities of certain species.

The first viburnum to bloom in the Arnold Arboretum is *Viburnum fragrans*. Ordinarily, one or two flowers in a cluster start to open early in March, the remaining flowers finally opening in April. Since this species blooms so early in the season, the flowers are often killed by late frosts. Sometimes the flower buds themselves are partly frozen, so that the inflorescences have a blasted appearance when open. Consequently, *Viburnum fragrans* is not of great value in New England although the flowers are very fragrant and certain of the plants have a picturesque upright habit of growth. Farther south, where the possibility of winter injury is less, it is more valuable from a landscape point of view.

The second viburnum to bloom is *V. Carlesii*. It forms a round, broad bush and usually starts to bloom about the last week in April. By the early part of May it is in full bloom. Because of its time of flowering, it is not often injured, and is therefore considerably better for garden use than is *V. fragrans*. It, too, is very fragrant, and its small white flowers (pink in bud) are very similar in size and shape to those of our native mayflower or trailing arbutus. *Viburnum bitchiuense* is a third representative of this group with fragrant flowers. The young plants are very difficult to distinguish from *V. Carlesii*, but as the plant grows older it becomes considerably more loose and open in growth habit, and consequently is not as valuable for landscape planting as is *V. Carlesii*. Unfortunately various American nurserymen ordering seed of *V. Carlesii* from Japan have received seed of *V. bitchiuense*. Because of the similarity of the young plants, it is often very difficult to correct the error.

Two other viburnums are valued for their large, sterile flower clusters and are commonly called the snowballs. The first, *V. Opulus roseum* (*V. Opulus sterile* in the trade) is too common in our gardens. It is the taller growing of the two and the large sterile flowers are borne in round masses of about the same size as those of the ordinary snowball. Unfortunately the leaves, young shoots, and flower clusters are subject to severe infestations of plant lice which materially disfigure all parts of the plant. For this reason, it should not be planted. By far the better of the two, and a form which is not susceptible to infestation by plant lice, is the Japanese snowball, *V. tomentosum sterile* (*V. tomentosum plicatum*). It is not quite as hardy as the common snowball, being killed to the ground as far south as Philadelphia during the severe winter of 1933-34, (though certain individual plants survived without injury) but in normal winters it is perfectly hardy in New

PLATE XVII

Viburnum prunifolium. This plant usually grows with a single leader although it can be treated as a shrub.

England. Besides having large flower clusters, its branches are horizontal, like those of *V. tomentosum*, giving the plant a unique layered appearance, particularly in the winter when the branches are bare. A third snowball, *V. macrocephalum sterile* or the Chinese snowball, is not hardy in the north, but in the south it is very popular for its large round clusters of flowers.

The rest of the viburnums have large flat clusters of flowers, the flowers themselves being very small and creamy white in appearance, very similar to those of Queen Anne's lace or wild carrot. There are a few species, like *V. Sargenti*, which have a few conspicuous sterile flowers on the outside of the cluster, making them slightly more conspicuous than the others. These viburnums are valued for their small flowers. It is true that *V. dentatum*, *V. dilatatum* and *V. pubescens Canbyi* are outstanding when in full bloom because there is always a wealth of flower clusters almost covering the plant, but other than the few species mentioned above most of the viburnums cannot be considered as having conspicuously beautiful flowers. Most of them bloom during May and June.

Viburnums for Fruit

The majority of the viburnums, with the exception of the double-flowered varieties and a few others, have bright colored fruits. They range in color from yellow to red to blue and black with varying intermediate shades. As a group, the viburnums are valued for their fruits more than for any other reason, and a careful selection of them should insure very colorful spots in the garden from late summer until far into the winter. Some of the fruits are simply black like those of *V. acerifolium*. These are not particularly conspicuous, but nevertheless are very attractive to the birds. The fruits of some others, like those of *V. Sieboldii*, are eventually black, but before maturity they are a brilliant red. Since they remain on the shrub for some time while they are so colored, they lend much interest to the plant in the late summer and fall. Enough cannot be said about the good landscape possibilities of *V. Sieboldii*, since it is not only excellent from the standpoint of bright colored fruits and tall often tree-like habit, but it is also a splendid foliage plant. Even after the fruits have fallen, the bright red-colored fruit stalks remain on the plant a long time, lending considerable color to the plant until late in the fall.

Other viburnums, like *V. cassinoides* and *V. Lentago*, have most interesting fruits, since they change in color from green to pink and red to dark blue. Often several of these colors are evident on the same

PLATE XVIII

Viburnum dilatatum xanthocarpum, one of the rare yellow-fruited viburnums.

cluster or even on the same berry. Such a characteristic gives the plant great interest in the fall.

Certain viburnums like *V. Opulus* and *V. trilobum (V. americanum)* keep their fruits a greater part of the winter, providing there are not too many birds in the vicinity. Others, like *V. fragrans*, ripen early in the summer, but as these are soon eaten by the birds the color characters of the fruit cannot be counted upon to be of any landscape importance.

Yellow-fruited Varieties

Although most of the viburnums have red or blue fruits, some are yellow at maturity, and it is these that are worthy of more general cultivation. They should not be used in place of the red-fruited forms, but in conjunction with them. There are at least three, all of which are growing in the Arnold Arboretum but none of which are listed by American nurserymen, namely: *V. dilatatum xanthocarpum*, *V. Opulus xanthocarpum*, and *V. Sargenti flavum*. One other, *V. setigerum aurantiacum*, has good orange-red fruits rather than yellow ones. This plant should also be grown. Since the autumn color of the foliage of each species is dark red, the yellow fruits show off to excellent advantage after the foliage has turned color in the fall. A planting of considerable autumn interest might be made by using two plants of the red-fruited *V. dilatatum* back of a single yellow-fruited variety. The growing of these yellow-fruited forms cannot be recommended too highly, both for nurserymen and gardeners themselves. Some growers take the misguided view that since there is no demand for certain rare plants, such plants have no sales value. This certainly should not be true of the yellow-fruited viburnums, for once they have become known to the public, there is no reason why they will not be even more popular than are the red-fruiting forms.

Landscape Uses

As a group, the viburnums are vigorous growing shrubs which enjoy a good sunny location and can be used either in mass plantings or as specimens. As a specimen foliage plant, there is probably nothing nicer than *V. Sieboldii* with its dark green leaves and its masses of billowy foliage. The exotic viburnums, particularly, are used as specimens, while the native ones are used considerably in naturalistic plantings. *Viburnum acerifolium* and *V. alnifolium* are two plants which grow better in the cool shade of the woods than they do in the open sun. *Viburnum pubescens Canbyi* also is excellent for naturalistic planting. As a general rule the other species like sunny locations, and when so

situated they will flower and fruit much better than if grown in continual shade.

In the fall, the predominating autumn color of the entire group is red. Some, like *V. prunifolium*, are a brilliant red, while others like *V. dilatatum* are a dull red. *Viburnum acerifolium* has almost a purple autumn color and is probably one of the few members of the group showing no shade of red in the fall. In order to get the best color effects from the foliage in the fall, most of the viburnums should be grown in the full sun, particularly in situations where they are exposed to the warm sun in the late afternoons of September and October.

The species differ considerably in the mature height to which they grow. *Viburnum prunifolium* has a single trunk and is considered a small tree; *V. Lentago* sometimes grows into a small tree. The dwarf variety of the cranberrybush, *V. Opulus nanum*, never gets over 18 inches tall, and is splendid for low rock plantings or for formal edging material around small low gardens. Other species range in height between these two extremes. The chart gives the approximate height of the various species, as they are used in landscape plantings.

Tender Viburnums

In the south there are several outstanding viburnums that are highly valued for garden use. These would include the evergreen *V. japonicum*, *V. odoratissimum*, *V. tinus*, and several of its varieties, *V. rhytidophyllum*, *V. suspensum*, *V. macrocephalum*, *and V. Burkwoodii*. *Viburnum Burkwoodii* has only recently been introduced into the country, but midwestern nurserymen are now growing it in quantity. It is a cross between *V. utile* and *V. Carlesii*. In a protected place in the Arboretum it withstood the severe winter of 1933-34 in splendid condition, but it cannot be grown in the open in New England. South of Philadelphia it is reliably hardy and is fast becoming a favorite for its lustrous green foliage and pretty flowers. It is not as dense and compact in its growth habit as grafted plants of *V. Carlesii*.

DONALD WYMAN

SOME GOOD ORNAMENTAL VIBU

	Date of introduction into U. S.	Native of
V.acerifolium		U.S.
V.affine hypomalacum		U.S.
V.alnifolium		U.S.
V.bitchiuense	1911 ?	Japan
V.Burkwoodii	1924	V.utile V.Carlesii in England
V.Carlesii	1902	Korea
V.cassinoides		U.S.
V.dentatum		U.S.
V.dilatatum	about 1865	Japan & China
V.dilatatum xanthocarpum	1919	Orig.U.S.
V.fragrans	1915	China
V.Lantana	prior to 1828	Europe & W. Asia
V.Lentago		U.S.
V.Opulus	prior to 1790	Europe and N. Africa
V.Opulus nanum	prior to 1880	Orig. in Europe before 1845
V.Opulus roseum (V.Opulus sterile)	prior to 1771	Cult. in Europe
V.Opulus xanthocarpum	about 1898	Orig.in Europe prior to 1840
V.prunifolium		U.S.
V.pubescens Canbyi		U.S.
V.rhytidophyllum	1908	China
V.Sargenti	1892	N.W.Asia
V.Sargenti flavum	1904	Orig. in U.S.
V.setigerum (V.theiferum)	1901	China
V.setigerum aurantiacum	1908	Orig. in U.S.
V.Sieboldii	about 1880	Japan
V.tomentosum	about 1865	Japan & China
V.tomentosum sterile (V.tomentosum plicatum)	about 1844	Japan & China
V.trilobum (V.americanum)		U.S.
V.Wrightii	1892	Japan

* fair
** very good
S summer
F fall
W winter
– no value

NUMS, HARDY IN THE NORTH

Time of effective fruit	Color of fruit	Value of fruit	Value of flower	Approximate height	For naturalistic planting
F	black	–	–	6′	*
F	black	–	–	6′	*
S	changing red to black	*	–	9′	*
S	black	–	*	10′	
–	black	–	**	10′ ?	
–	black	–	**	5′	
F	changing red to black	**	–	8′	*
SF	blue	*	**	15′	*
FW	red	**	*	9′	
FW	yellow	**	*	9′	
S	changing red to black	–	*	9′	
F	changing red to black	*	–	15′	*
FW	black	**	*	30′	*
FW	red	**	*	12′	
–	–	–	–	2′	
–	–	–	**	12′	
FW	yellow	**	*	12′	
FW	black	**	**	15′	*
FW	black	*	**	9′	*
F	changing red to black	–	–	9′	
S	scarlet	**	*	9′	
S	yellow	**	*	9′	
F	red	*	–	12′	
F	orange-red	*	–	12′	
S	changing red to black	**	*	30′	
S	changing red to black	**	*	9′	
–	–	–	**	9′	
FW	red	*	*	20′	*
S	red	**	*	9′	

Sources for rare woody plants. In connection with some other work, the Arboretum has just completed checking some 1200 nursery catalogues for rare woody plants. If you have difficulty in locating sources for such rare woody plants, write to the Arboretum, and it may be that a source can be located for you.

Note. Arrangements have been made with Mr. Richard Archbold, leader of the Archbold Expeditions to New Guinea, whereby the specimens collected by Mr. L. J. Brass, the Expedition Botanist, will be identified under the auspices of the Arnold Arboretum. Mr. Archbold is about to leave this country on his third trip to New Guinea under the auspices of the American Museum of Natural History and expects to be in the field for about one year.

These Bulletins will now be discontinued until the spring of next year.

Subscription renewals for 1938 are now due. Send the subscription price of $1.00 to the Bulletin of Popular Information, Arnold Arboretum, Jamaica Plain, Mass., at your early convenience.

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